

# **Proposed Navy Mitigation Project**

Presented to: Washington State Department of Ecology  
Resource Damage Assessment Committee

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Naval Base Seattle

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# **RIPARIAN ZONE REVEGETATION AND STREAM CHANNEL CLEAN-UP**

**FAMILY SUPPORT COMPLEX  
NAVAL STATION EVERETT  
MARYSVILLE, WASHINGTON**

## **1) Location of Project**

The proposed project is located in a modified stream course along the western boundary of the Family Support Complex (FSC) in Marysville, Washington. This 1,400-foot Type 4 watercourse, which flows north to south along the western boundary, is approximately 4-6 feet across and averages 1 ½ feet deep. A flow of approximately 2-3 cubic feet per second (cfs) was observed during site visits on 13 and 20 May 1998. This watercourse has a sandy/silt substrate and is lined and partially filled with aquatic vegetation including cattails, grasses, and localized willows/blackberry clusters. Both banks of the stream/drainage channel have been highly modified with the resulting loss of tall riparian vegetation. The stream flows into Quilceda Creek which is a Class A freshwater stream (WAC 173-201A). Quilceda Creek and its tributaries support coho salmon and, to a lesser extent, chinook and chum salmon. The Washington Department of Fish and Wildlife Priority Habitat and Species mapping for the area indicates that anadromous fish utilize the stream. The project stream could support juvenile salmonid rearing but no adult spawning due to a lack of suitable spawning substrate.

Birds observed in this stream and/or the cattail pond to the east of the parking lot were: Mallard (including two broods), Shoveler, Gadwall, Blue-winged Teal, Cinnamon Teal, Great Blue Heron, Tree Swallow, Violet-green Swallow, Barn Swallow, Common Crow, Red-winged Blackbird, American Robin, Marsh Wren, Bushtit, American Goldfinch, Song Sparrow, Savannah Sparrow, Northern Yellowthroat, and nearby, the introduced and ubiquitous European Starling and House Sparrow. Mammals using the area include feral cats, coyotes (Jeff Young, USDA Wildlife Services, pers. comm.) and the beaver(s) that built the dams. One fish, a threespine stickleback, was observed. A site location map is attached.

## **2) Description of Project**

This composite project entails the use of hand labor to replant woody riparian vegetation along the eastside stream bank, remove debris from the streambed, and, if possible, buy or obtain an easement so that the beaver dam-created pond along the southwestern boundary can be maintained.

a) Replant woody riparian vegetation along the eastside stream bank

The original stream was modified/realigned to function as a large drainage ditch. The west bank follows cultivated agricultural ground while the east bank is FSC property. The modifications on both banks have resulted in limited areas of woody riparian vegetation. The remaining areas are covered by grass and cattails, which are encroaching upon the streambed and inhibiting the stream flow. Streambed areas under the isolated, tall woody vegetation are devoid of encroaching vegetation due to their being shadowed by these trees. The proposed action is to replant the east bank with native trees including willows, alder and conifers. Plantings would be on a 10-foot spacing grid in two staggered rows along the stream bank margin.

b) Removal of debris from the channel

This project element consists of removing five tires from the channel. These are located approximately 75 feet downstream from the northwest corner of the FSC property. No mechanized equipment would be used.

3) Describe how this project will benefit resources potentially affected by oil spills

The reestablishment of the riparian woody vegetation would inhibit the encroaching growth of vegetation within the stream channel, thereby providing open channel flow. The beneficial effects would include the development and/or maintenance of rearing pools and depth cover for juvenile salmonids; reduction or elimination of channel excavation by mechanical means to maintain water flow; and thermal cover to maintain lower water temperatures. Secondary benefits would provide cover and nesting sites for birds.

4) Define the goals and measurable objective of this project. How will success be measured?

The tires would be counted upon removal. The native vegetation planting would be located between the isolated, existing clusters on grid spacing. The planted grid would be checked for required spacing annually. Trees that die would be replaced.

5) What is the estimated duration of this project?

The normal planting period is from November through April. It is estimated that a 6- to 12-person planting crew would be able to accomplish this task within 2 days. The tire removal would require approximately 1 hour for 3 people.

6) What is the estimated cost of this project?

The Ship's crew would provide labor. Planting tools would be provided from Navy assets. The plants would come from local nurseries. Near channel plants would cost

approximately \$1.00 each. Upper slope plants would cost approximately \$2.00 to \$3.00 each. Approximately 400–500 plants would be needed.

7) For projects involving habitat restoration/acquisition

a) What is the approximate acreage of the area to be restored?

Approximately 0.3 acres would be planted. Approximately 0.6 acres of shade coverage is expected.

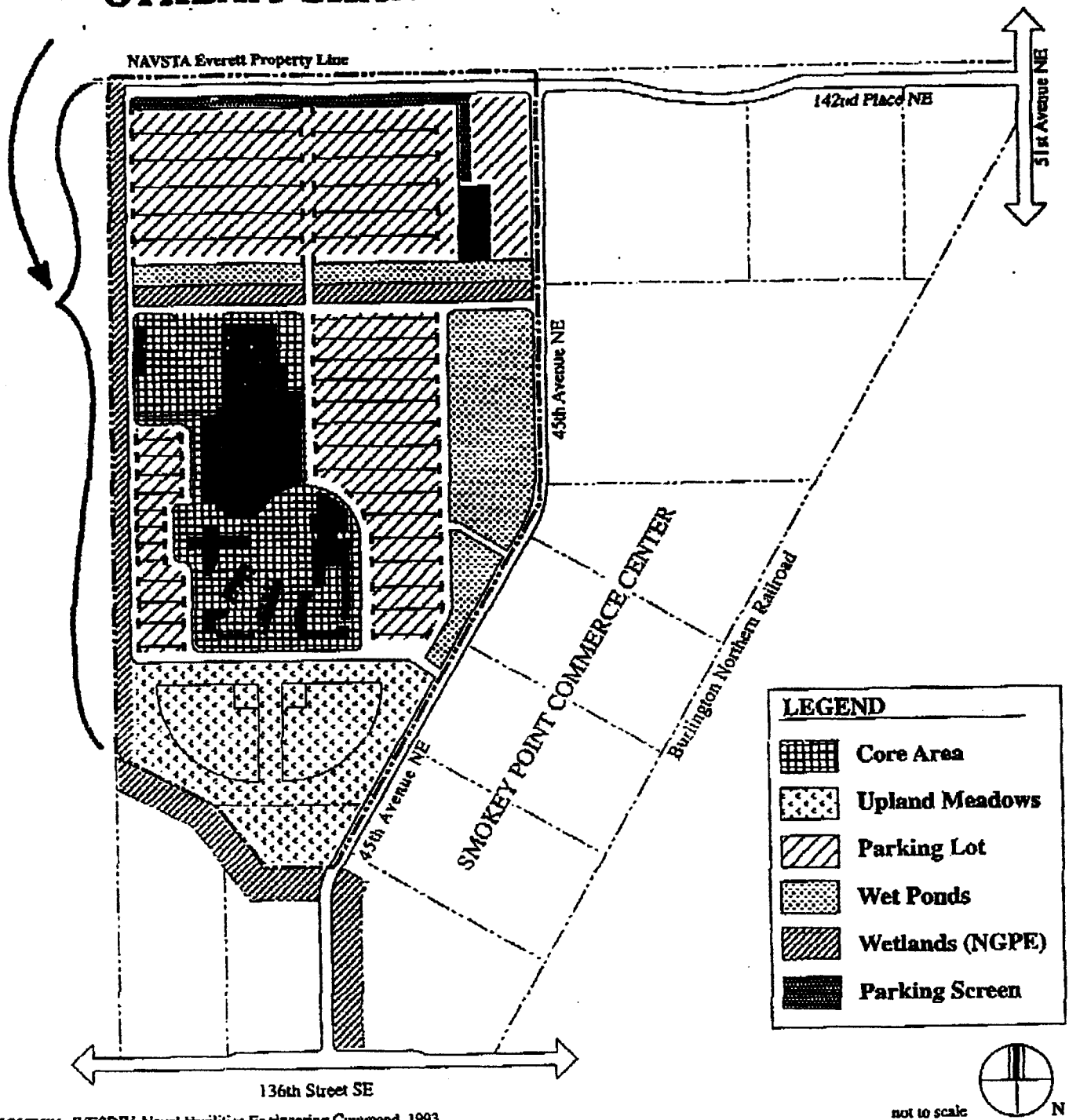
b) What is the current ownership of the area to be restored?

The Department of Navy owns the land to be restored.

c) Please attach a map showing the location where the restoration project will take place.

This map is attached.

# STREAM CHANNEL



SOURCE: WESDIV, Naval Facilities Engineering Command, 1993

Natural Resources Management Plan  
NAVSTA Everett

Family Support Complex  
Landscape Types

Figure 8